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NEW FRUITS

1958-59

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NEW YORK STATE FRUIT TESTING COOPERATIVE ASSOCIATION

GENEVA, NEW YORK

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NEW YORK STATE FRUIT TESTING
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Cover Photo by Paris Trail

Front—Monroe; *Back*—Alden

A CATALOG OF NEW FRUITS

1958-1959

MOSTLY ORIGINATED AT THE NEW YORK STATE
AGRICULTURAL EXPERIMENT STATION

ORGANIZATION AND PURPOSE OF THE NEW YORK STATE FRUIT TESTING COOPERATIVE ASSOCIATION, INC.

The New York State Fruit Testing Cooperative Association, Inc., was organized in 1918 for the purpose of introducing for testing new fruits recommended as worthy of trial by the New York State Agricultural Experiment Station. No funds have ever been appropriated for the support of this Association and therefore a sufficient charge must be made for nursery stock to cover expenses. The Association has grown steadily with a membership today of about 4,500, representing 48 States and many foreign countries.

The only requirement for membership is that the tester must have an interest in new fruits. An annual fee of \$1.00 is levied, the fiscal year commencing September first. Paid-up members are entitled to a credit of \$1.00 as a premium. Premiums are not allowed to accumulate. Each member receives the annual catalog and notification of the annual meeting. This meeting is held each year at Geneva the third Thursday of September and features a large exhibit of new fruits, conducted tours of Station plantings and a program of talks by fruit specialists.

This Association has done great service in the past in helping to determine the merits of new fruits. Members are today rendering a real service to the fruit industry by growing, testing, and reporting on these newer varieties. Unfortunately a few assume that all introductions herein listed are being recommended as commercial varieties. Such an attitude defeats the purpose of this organization. We try to give a brief description, based on available data, of the performance of these varieties at Geneva. The strong and weak points of each variety are presented. Under other conditions of soil and environment they may perform much better or not as well as with us. Progress reports are always welcome. The sum total of members' experience together with our own records will largely determine future recommendations.

RECENT INTRODUCTIONS

A thorough evaluation of a new fruit requires extensive testing under varied soil and climatic conditions. The following named varieties have shown sufficient promise at Geneva that the Experiment Station is recommending their trial on a limited scale for the purpose described:

Apples—Barry, Beacon, Crandall, Fyan, Puritan, Ruby, Spartan, Wellington. See page 3. *Color sports*—Bridgham Delicious, Vance Delicious, Bolter McIntosh, Cornell McIntosh, Clifton Rome. See page 3.

Peaches—Fairhaven, Kalhaven, Richhaven, Summerrose, Sunhaven. See page 12.

Nectarines—Cavalier, Nectacrest, Nectarose. See page 12.

Grapes—Baco No. 1, Seibel 10868, Seibel 10878, Seibel 13047, Seibel 13053, Seyve Villard 5-276. See page 23.

Blueberries—Berkeley, Bluecrop, Blue-ray, Coville, Earliblue, Herbert. See page 24.

Raspberries—Amber. See page 26.

NUMBERED SELECTIONS

In order to give members an opportunity to help test promising selections from fruit breeding work of the New York State Agricultural Experiment Station at Geneva, the Association has propagated a number of outstanding seedlings which are still under number. Members who are interested in trying out these selections will assist the Experiment Station fruit breeders in evaluating this material.

The Geneva Experiment Station, however, must retain control over these selections until they have been proved worthy of introduction to the general public, at which time they will be named. Therefore, members will be requested to sign an agreement that they will grow the plants for test purposes only and that they will not sell, give away, or otherwise distribute plants or propagating material until the selections are named or until they are authorized to do so by the Department of Pomology of the New York State Agricultural Experiment Station. The following are available in limited quantities.

<i>Apple</i>		<i>Apricot</i>	
7 New York 44416-6.....	See page 7	7 New York 345.....	See page 15
7 New York 49-23.....	See page 9	7 New York 346.....	See page 15
7 New York 50-4.....	See page 9	<i>Nectarine</i>	
7 New York 43021-2.....	See page 6	6 New York 884.....	See page 12
7 New York 17207.....	See page 6	7 New York 1017.....	See page 12
7 New York 5329.....	See page 6	<i>Grape</i>	
7 New York 49-17.....	See page 6	7 New York 12997.....	See page 22
7 New York 50-2.....	See page 6	7 New York 14528.....	See page 22
6 Ottawa T-441.....	See page 7	7 New York 15302.....	See page 23
7 Ottawa 274.....	See page 7	7 New York 15305.....	See page 23
7 Ottawa 292.....	See page 7	6 New York 17806.....	See page 22
<i>Cherry</i>		6 New York 18080.....	See page 22
7 New York 591.....	See page 11	<i>Raspberry</i>	
7 New York 1495.....	See page 11	7 New York 17861.....	See page 26
7 New York 1507.....	See page 11	<i>Blackberry</i>	
7 New York 1510.....	See page 11	7 New York 24338.....	See page 27
7 New York 1512.....	See page 11	<i>Strawberry</i>	
7 New York 1519.....	See page 11	7 New York 96.....	See page 28
<i>Pear</i>		7 New York 386.....	See page 28
7 New York 4885.....	See page 17	7 New York 418.....	See page 28
7 New York 7620.....	See page 17	6 New York 423.....	See page 28
<i>Plum</i>			
7 New York 826.....	See page 19		
7 New York 930.....	See page 19		
7 New York 981.....	See page 19		

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APPLES

During recent years a number of new apple varieties have been introduced by various Experiment Stations.

The Monroe introduced by the New York Station in 1949 is already being accepted by growers as a possible replacement for Baldwin. It is a heavy annual cropper, has outstanding processing quality and has acceptable dessert quality. Idared, a late keeping dessert variety and Spartan, a McIntosh type which is picked later and keeps longer than McIntosh are arousing considerable grower interest. These and other varieties listed in this catalog are showing promise of commercial value and may eventually assume commercial importance.

The following apple varieties are being offered this year and are listed in order of ripening season, from early to late.

SUMMER APPLES

	Parentage	Where Orig.	Year Introd.
p. 7 Ottawa T-441	Crimson Beauty × Red Melba	Canada	—
Lodi	Montgomery × Yellow Transparent	N. Y. Sta.	1924
p. 2 Ottawa 292	Melba × Crimson Beauty	Canada	—
p. 7 Ottawa 274	" " "	"	—
Wellington	Cortland × Crimson Beauty	N. Y. Sta.	1955
Red Melba	Pate Sport	Canada	—
Beacon	Malinda (open pollinated)	Minn.	1936
Greendale	McIntosh × Lodi	N. Y. Sta.	1938
R. Van Buren	Duchess seedling (open pollinated)	"	1919

EARLY FALL

o Puritan	McIntosh × Red Astrachan	Mass.	1953
Early McIntosh	Yellow Transparent × McIntosh	"	1923
Gravenstein	Mead Red Sport	"	1939
See p. 8 Milton	Yellow Transparent × McIntosh	N. Y. Sta.	1923
Redhook	McIntosh × Carlton	"	1938
Barry	McIntosh × Cox Orange	"	1957
p. 2 New York 17207	Haralson × McIntosh	"	—
p. 1 New York 50-2	Carlton × McIntosh	"	—

MID-SEASON

Webster	(Ben Davis × Jonathan) × (B. D. × Jon.)	"	1938
See p. 8 McIntosh	Bolton Red Sport	N. Y.	1955
See p. 8 McIntosh	Cornell Red Sport	N. Y.	1956
Franklin	McIntosh × Delicious	Ohio Sta.	1937
Kendall	Zusoff × McIntosh	N. Y. Sta.	1932
Cortland	Ben Davis × McIntosh	"	1915
p. 2 New York 49-17	Haralson × Cortland	"	—
See p. 8 Delicious	Bridgham Red Sport	—	1955
See p. 8 Delicious	Vance Red Sport	—	1957
Macoun	McIntosh × Jersey Black	N. Y. Sta.	1923
Spartan	McIntosh × Yellow Newtown	Canada	1936

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	LATE	Parentage	Where Orig.	Year Introd.
	7 Sweet Delicious	Deacon Jones × Delicious	N. Y. Sta	1922
	7 Newfane	"	"	1927
	7 Melrose	Jonathan × Delicious	Ohio Sta.	1944
	7 Monroe	Jonathan × Rome Beauty	N. Y. Sta.	1949
	7 Fyan	Ben Davis × Jonathan	Missouri Sta.	1935
	7 Crandall	Rome Beauty × Jonathan	Ill. Sta.	1951
	7 Idared	Wagner × Jonathan	Idaho Sta.	1942
	6 New York E-6	Red Spy × Golden Delicious	N. Y. Sta.	—
	p2 New York 43021-2	Red Spy × Golden Delicious	N. Y. Sta.	—
	p2 New York 5329	(Zusoff × McIntosh) × Red Spy	"	—
see p. 19	7 Rome	Clifton Red Sport	—	—
	7 Ruby	Gallia Beauty × Starking	Ohio Sta.	1953
CRAB APPLES				
	> Dolgo	A Russian Crab	S. Dak. Sta.	1916
	7 Young America	Unknown	N. Y.	—
ORNAMENTAL APPLES				
	7 Redfield	Wolf River × M. niedzwetzkyana	N. Y. Sta.	1938
	> Van Eseltine	M. arnoldiana × M. spectabilis	"	1937
p2	New York 49-23	(M. arnoldiana × M. niedzwetzkyana)	"	—
p2	New York 50-4	Malus zumi × N. Y. 11932	"	—
p3	<p>Barry—This is the latest introduction from the New York Agricultural Experiment Station. It is medium to large in size, a solid dark red blush in color. Its quality would rate as good to very good for both dessert and culinary uses. Barry is a fall variety, reaching picking maturity about two weeks before McIntosh.</p>			
p3	<p>Beacon—An early variety maturing about a week after Melba. It ripens over several weeks, hence requires about three pickings. It produces large, usually annual crops of medium sized dark red-streaked fruit of fair to good quality. Unlike most early varieties, Beacon handles well and may be stored for six to eight weeks. The variety is worthy of extended trial for early fresh market sales.</p>			
p3	<p>Cortland—ranks third in New York State in total production. Cortland is now well known as a heavy annual cropper of large sized, attractively red-striped, white fleshed fruit of excellent dessert quality. It also has culinary value—particularly for salads and pies. For best keeping quality, Cortland should be picked within four to five days after the optimum picking date for McIntosh. In commercial practice, however, Cortland, because it hangs to the tree so much better than McIntosh, is usually picked much too late. This may result in a shortened storage life and severe storage losses. When picked at the proper time, Cortland has a four to six week longer storage life than McIntosh.</p>			
p4 acute	<p>Crandall—This new variety is interesting in that it is derived from the same parents as Monroe, our 1949 introduction. Crandall is of medium size, attractively colored medium red. The flesh is fine grained, crisp and juicy and is rated good for both dessert and culinary purposes. Recommended for trial planting.</p>			

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- Early McIntosh**—resembles McIntosh in appearance but is less aromatic and more sprightly. Its tree is vigorous and productive. One of its major faults is that it sets too heavy a crop on alternate years. Severe thinning is needed to obtain good commercial size. Early McIntosh ripens about one week after Melba and about with the Duchess. Its main value is for the home and local markets.
- Franklin**—at Geneva ripens a few days after McIntosh and is a high quality, though mild flavored dessert apple. The fruit is round-conic in shape and attractively red striped with a heavy bloom. It has a tendency toward biennial bearing which may not be serious where blossom thinning sprays are used.
- Fyan**—Introduced in 1935 by the Missouri Agricultural Experiment Station, this variety shows considerable promise for the Northeast. It is a heavy annual cropper ripening a few days after Delicious. The fruit averages somewhat larger than Ben Davis, is attractively red-striped, firm fleshed and of fair to good quality. Preliminary tests rate it as acceptable for processing.
- Greendale**—its name suggests green color and it is handsome green in color like its parent, Lodi, while it is shaped like its other parent, McIntosh. The combination of these two characters has resulted in an attractive, trimly shaped, green apple. Its quality, too, is as good as its appearance—excellent for both eating and cooking. To extend the season of Lodi this sort is unsurpassed for a roadside trade which desires a good green apple late in August.
- Idared**—originated at the Idaho Agricultural Experiment Station from a cross between Wagener and Jonathan. It is a handsome solid bright red apple of good quality, maturing about a month after McIntosh. At Geneva, Idared has performed very satisfactorily and shows real promise as a late keeping dessert or general purpose apple.
- Kendall**—is proving to be a real money maker because of its heavy annual production of large attractive solid red fruit. Because it colors early, it is frequently picked and marketed before McIntosh, but for best quality, it should be picked about with Cortland.
- Lodi**—has rapidly become a commercial apple in those areas that grow early yellow-colored apples, such as the Yellow Transparent. Its fruits ripen a few days later than Yellow Transparent but are larger and stand up better in shipping. The tree is large and although it tends to bear biennially, can be made annually productive through proper use of blossom thinning sprays.
- Macoun**—is considered the highest quality dessert apple grown in the Northeast. Many growers are reporting premium prices for it; its popularity is increasing both commercially and for the home garden. The tree is upright in habit and may need extra training to develop a spreading top. However, as the tree comes into bearing, the upright habit is minimized. It responds to chemical thinning which ensures good fruit size and annual bearing.

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- P6* **Melrose**—is a new variety from the Ohio Experiment Station, Wooster, Ohio which has performed well at Geneva. It resulted from a cross between Jonathan and Delicious and the fruits resemble Jonathan except they are not quite so highly colored and are somewhat more oblate. Melrose is a late keeping high quality dessert apple and is worth a trial planting where an apple of this type and season is wanted. Requires thinning to achieve size and help maintain annual cropping.
- P5* **Milton**—is a handsome apple of Wealthy season and sells readily on roadside markets. Its resistance to rust is an important factor in the Hudson River Valley. The tree is hardy, vigorous and an annual bearer. The fruits are pinkish red with a heavy bloom. The flesh is white, tender, crisp, juicy, and of McIntosh flavor but more sprightly.
- P4* **Monroe**—tree medium sized, upright-spreading, vigorous and a heavy annual bearer. Fruit large roundish-conic; color similar to Jonathan, its maternal parent. Flesh yellowish, crisp, juicy and mildly subacid; quality good. Winter apple that offers possibilities for dessert and culinary uses. Shows promise of a possible replacement for Baldwin. In processing tests Monroe has rated very high for sauce, frozen and canned slices. Monroe is somewhat subject to mildew which is readily controlled by including sulfur in the spray schedule up to petal fall.
- P3* **Newfane**—produces large-sized fruit of a very attractive red color. The shape is oblong-conic and the flesh tender, medium juicy, mildly flavored with a pronounced Delicious aroma. Newfane is a delicious dessert apple at Christmas time.
- P4* **New York E-6**—(Red Spy \times Golden Delicious)—a very promising new selection. It is of large size, 75% red striped, very firm fleshed and of exceptionally high quality. Being a triploid, it is of no value in pollinating other varieties.
- P3* **New York 43021-2**—(Red Spy \times Golden Delicious)—is a late dessert type ripening about a week ahead of Northern Spy. It is large, firm fleshed and of good quality. The color is a brilliant blush scarlet over a light yellow ground.
- P7* **New York 17207**—(Haralson \times McIntosh)—A productive McIntosh type which reaches picking maturity about ten days before McIntosh. It is large and an attractive solid bright red. Its quality is nearly as good as McIntosh.
- P7* **New York 5329**—(Zusoff \times McIntosh) \times Red Spy—This selection resembles a well colored Northern Spy in appearance, flesh and flavor. It is somewhat less acid and ripens a week earlier. Trees on standard rootstocks bore heavy crops after seven years in the orchard, hence it is considerably more precocious than Northern Spy.
- P2* **New York 49-17**—(Haralson \times Cortland)—A very precocious and very productive selection which reaches picking maturity about ten days after McIntosh. The fruit is large, solid red striped in color and has fair to

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good dessert quality. This selection may be of value where a McIntosh type is wanted to follow McIntosh in picking season.

p1 **New York 50-2**—(Carlton × McIntosh)—A good quality McIntosh type ripening about ten days ahead of McIntosh. In color finish and flavor, this selection is very similar to McIntosh.

p1 **New York 44416-6**—(Macoun × Red Spy)—a good quality, firm fleshed, red-blushed apple which matures just after McIntosh. Its firm flesh, high quality and good appearance are its chief attributes. A promising dessert variety.

p1 **Ottawa 274**—(Melba × Crimson Beauty)—from the Central Experimental Farm, Ottawa, Canada. Resembles Melba but is a few days earlier in maturity. Not as large as Ottawa 292 and is somewhat milder flavored.

p1 **Ottawa 292**—(Melba × Crimson Beauty)—a fine, early apple from the Central Experimental Farm, Ottawa, Canada, which matures about a week before Melba. It is large, attractively red-striped and blushed and has high quality, although somewhat sprightly. It ripens unevenly and requires at least two pickings. This selection appears to be superior to other varieties of its season.

p1 **Ottawa T-441** (Crimson Beauty × Red Melba)—A very early variety from the Ottawa Station, Canada which ripens with Crimson Beauty. It is of a very attractive solid red and has much of the Melba high quality. A very promising early variety.

p3 **Puritan** (McIntosh × Red Astrachan)—A new McIntosh type from the University of Massachusetts which reaches picking maturity about with Early McIntosh. It has fine appearance being a solid red blush in color and averages larger than Early McIntosh. It is more acid in flavor than Early McIntosh and for dessert purposes rates fair to good in quality. It is well worthy of trial for commercial plantings.

p3 **Redhook**—has a very handsome dark red color and heavy bloom, attractive color being an outstanding characteristic. Sometimes the flesh of the apples is decidedly red. The fruit averages about as large as McIntosh and ripens between Milton and McIntosh. It is sprightly in flavor and is a good dessert apple for the home and roadside market.

p3 **Red VanBuren** (Probably a seedling of Duchess)—Ripening a few days later than Duchess, Red VanBuren appears to be similar to Duchess in flavor and quality, but averages considerably larger in size and is of a solid dark red blush which is more attractive than the striped coloring of Duchess. When a variety of Duchess type is wanted, Red VanBuren would seem to be preferable to Duchess.

p4 **Ruby**—produces large, fairly attractive fruit of good quality for both dessert and processing. It is a particularly good keeper. May have value as a late general purpose variety.

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- P3 **Spartan**—A very attractive McIntosh type apple maturing about one week after McIntosh. It has firmer flesh than McIntosh and has excellent dessert quality. It keeps in storage several weeks longer than McIntosh and is recommended for trial where a McIntosh type apple, which may be picked after and stored longer than McIntosh, is wanted.
- P3 **Sweet Delicious**—fruits are flatter than those of Delicious—large and attractive in size, color, and shape, with the sweet aromatic flavor of Delicious. The variety is for home use where it will be chiefly appreciated for dessert and baking. Sweet Delicious is our best winter sweet variety.
- P3 **Webster**—A large handsome red streaked apple which should become a valuable processing variety. In processing tests, Webster has rated high and this quality coupled with its early ripening period gives the northeastern growers a variety to compete with the southern grown York Imperials. Webster produces heavy crops and is in season from October 1st to December 15th. As it is a triploid and produces poor pollen, provisions must be made to insure ample pollination.
- P3 **Wellington**—is a large attractive red-striped apple in season about a week ahead of Melba and unlike most early apples matures its fruit all at one time, hence requires only one picking. This variety appears to be superior commercially to other varieties in its season. In dessert quality this selection will rate fair to good but its fine processing qualities are its chief attribute and it shows real promise as an early commercial sauce apple.

RED SPORTS

- **Bridgham Delicious**—is a fine colored sport of Delicious and appears to be identical to Delicious except in color. The color is a brilliant light over-all red, striped much superior to the very dark color of some of the older sports of Delicious.
- ↗ **Vance Delicious**—is an early coloring and apparently early maturing sport of Delicious. It develops a beautiful solid red blush color with very little striping. The color is brighter than Starking. At Geneva, in most seasons, it reaches picking maturity about a week earlier than Starking. In other respects, it appears to be identical to Delicious.
- **Mead Gravenstein**—differs from the old Gravenstein in the solid dark red fruits. Gravenstein is a most excellent autumn apple, but this new color sport is so much superior in appearance to any of its kin that in the future its culture alone should be recommended.
- ↗ **Rogers McIntosh**—one of the oldest color sports of McIntosh and perhaps the most widely grown. It attains an attractive dark solid blush red color.
- **Boller McIntosh**—is a fine sport of McIntosh, credited to Arthur Boller, Sodus, N. Y. It develops a good blush color and the fruit is firmer than regular McIntosh. In other respects it appears to be identical to McIntosh.
- **Cornell McIntosh**—a fine bright colored sport of McIntosh found September, 1954 by L. G. Klein in the Cornell Orchard, Ithaca, N. Y. It appears to be

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identical to regular McIntosh except for the much improved color. Should be tested on limited scale.

Red Melba—is a color sport of Melba from Canada. The fruit is solid red striped with bright red over pale waxy yellow—an attractive color combination. It is of medium size, mildly and pleasantly flavored and highly aromatic. The season is ahead of and shorter than that of Early McIntosh, averaging about two pickings. The apples are very tender and bruise easily but are well adapted for the roadside stand and the home.

Clifton Rome—This is one of the better color sports of Rome Beauty. It develops a brilliant bright red solid blush over the entire fruit. In other respects, it appears to be identical to Rome Beauty.

CRAB APPLES

Dolgo—is a small, oblong, handsome red crab apple imported from Russia in 1897 by the late Professor N. E. Hansen of the South Dakota Experiment Station. The fruit is full of juice, jellies easily, and makes a rich, ruby-red jelly of beautiful color and excellent flavor. The tree is hardy, vigorous, and productive; the season early September.

Young America—produces abundantly, attractive red fruits of large size and good quality. Jelly made from the fruit is a clear, beautiful red and splendidly flavored. The tree is especially vigorous and hardy. The season is about the middle of September. Young America and Dolgo should be planted as ornamentals as well as for their fruit.

ORNAMENTAL APPLES

New York 49-23—an ornamental crab apple with unusually colorful rose-red blossoms. It blooms at two to three years of age and the fruit is an attractive small red crab apple.

New York 50-4—This is a beautiful red flowered and red leaved crab apple. It was selected as an ornamental.

Redfield—an apple for the lawn and other ornamental plantings because of its large and very dark pink flowers. The fruit is medium in size, dark deep solid red in color, with deep red flesh. The foliage is dark with a reddish green tinge early in the season. This is a very desirable ornamental.

Van Eseltine—a beautiful ornamental crab named in honor of the late originator. Buds pendulous and red, while open flowers are double and light pink. Tree upright.

DWARF APPLES

There has been a great deal of interest in recent years in apples on a size controlling root system among home growers as well as commercial apple producers. In general the two most outstanding characteristics of trees on such stocks are earliness of bearing and a smaller tree which facilitates

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orchard operations, such as pruning, spraying and harvesting. Experimentation with some of the dwarfing and semi-dwarfing apple root stocks of the East Malling series, as E.M. IX, E.M. VII and E.M. II has shown that the combinations of varieties and root stocks listed by us will give satisfactory performance.

The E.M. IX rootstock gives a typical dwarf tree that starts bearing the second or third year after planting. Since the root system of E.M. IX is brittle, it is recommended that trees on this stock be either supported by a stake or a trellis. Trees on this rootstock are best adapted to home gardens.

The E.M. VII and E.M. II rootstocks limit growth of the variety to a lesser degree but still hasten bearing. Trees on these stocks can be grown without any special support and will reach a size one-third to one-half that of a standard tree. E.M. VII has adaptation for the home and commercial orchard, whereas E.M. II is highly satisfactory for commercial orchards.

CHERRIES

All sweet cherry varieties are self-unfruitful. Two compatible varieties must be planted near each other to provide for cross-pollination. Most varieties will successfully pollinate the other varieties, but four varieties, viz., Bing, Emperor Francis, Lambert and Napoleon will not pollinate each other and must be planted with some other variety to insure a fruit set.

The Association now has a program of growing seedling Mazzard rootstocks from seed sources known to be free of virus. Buds from indexed virus free trees are used. This enables us to furnish trees which are virus free as far as can be determined. Our supply of these virus free trees will be limited for sometime. We, therefore, will also continue to offer some cherries of certified virus free buds grown on commercial Mazzard rootstock.

EARLY CHERRIES		Parentage	Where Orig.	Year Introd.
97	New York 1495	Emperor Francis × Gil Peck	"	—
MID-SEASON				
7	Royal Duke	Unknown	European	—
7	Vernon	Windsor (open pollinated)	Canada	1937
	Emperor Francis	Unknown	European	—
92	New York 1507	Schmidt × Bing	N. Y. Sta.	—
92	New York 1512	Schmidt × Lambert	"	—
7	Gil Peck	Napoleon × Giant	"	1936
92	New York 1519	Schmidt × Lambert	N. Y. Sta.	—
LATE				
92	New York 1510	Schmidt × Lambert	N. Y. Sta.	—
	Noble	Unknown	European	—
7	Hedelfingen	"	"	—
92	New York 591	Oswego × Giant	N. Y. Sta.	—

See above
Emperor Francis—is a large, high-quality cherry of the Napoleon type. The cherries have been less subject to cracking than those of Napoleon. The color of the two fruits is similar, except that those of Emperor Francis are a little

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redder and become darker. All in all, Emperor Francis promises to be one of the best main-crop sweet cherries.

Gil Peck—was named in honor of the late Professor Gilbert W. Peck of Cornell at the request of the Indians of the Six Nations. The fruit is large, dark purplish black, similar in shape to Giant and as good in quality. It is firm fleshed, juicy, sweet and richly flavored. The season is late midseason. Gil Peck is one of the best cherries of its season despite the fact that the fruits may occasionally crack in rainy harvest periods.

Hedelfingen—ripens just ahead of Windsor and Lambert. Its performance in New York, Canada and Europe justifies its being recommended as a large firm-fleshed, high quality, late, black cherry of the Lambert type. The fruit is more resistant to cracking than most cherries.

New York 591—(Oswego \times Giant)—is the best sweet cherry to follow Lambert. It ripens two weeks later than Lambert. It is a medium-sized, black cherry with flesh which is slightly tough until it is dead ripe. The flavor is sweet and good. Little cracking has been observed in this variety. The tree is very vigorous and moderately productive.

New York 1495—(Emperor Francis \times Gil Peck)—is a large, firm-fleshed, black cherry which ripens about one week before Early Rivers. It is the earliest firm-fleshed type. The quality is very good and it is the best in its season.

New York 1507—(Schmidt \times Bing)—is a productive variety ripening about Schmidt season. The fruit is medium to large, attractive and black in color. The flesh is sweet, firm and crisp and the quality is very good.

New York 1510—(Schmidt \times Lambert)—is very productive and ripens about five days after Schmidt. It is very large, attractive and glossy black with a firm black mildly sweet flesh. The quality is good.

New York 1512—(Schmidt \times Lambert)—has a dark mahogany color. The flesh is firm, crisp and juicy with a sweet and sprightly flavor which is very good. It is larger and more attractive, but probably more susceptible to brown rot and cracking than Schmidt with which it ripens.

New York 1519—(Schmidt \times Lambert)—is a productive cherry ripening a few days later than Schmidt. The fruit is large and very dark in color. The flesh is firm, crisp, juicy, sweet and of good quality. This cherry appears to be more resistant to cracking than most varieties.

Noble—is a late dark-colored firm-fleshed sweet cherry for market and home use. Its season of ripening is between Schmidt and Hedelfingen. The fruit is large, heart-shaped, slightly flattened at the apex, dark-purplish red and of high quality. The fruits seem to crack less than those of several of the late sweet cherries. It is an old English variety and has performed well at Geneva.

Royal Duke—has long been grown in Europe to follow May Duke. The trees are hardy, healthy, and productive. The cherries are large, handsome, dark

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red, well scattered along the branches, pleasantly flavored, refreshing, and very good in quality. Royal Duke has a place in home orchards for roadside and local markets.

Vernon—the fruit is large, firm-fleshed, black and ripens just before Bing. The tree is vigorous and productive. The variety has proven to be promising in New York.

NECTARINES

Nectarines are more susceptible to brown rot than peaches. However, the important point in the control of brown rot is thorough control of the insects whose feeding punctures permit entry of the brown rot. With good control of the insects and diseases, growing of nectarines is very rewarding for their delicious flavor makes them a very popular fresh fruit.

	Parentage	Where Orig.	Year Introd.
p. 2 New York 884	Big Boy × Schumaker (selfed)	N. Y. Sta.	—
p. 2 New York 1017	(Livingston × Greensboro) selfed	"	—
Rivers Orange	Unknown	European	—
Nectarose	(Garden State × (N. J. 7432))	N. J.	1947
Cavalier	(P.I. 43143 × VPI peach seedling) selfed	Va. Sta.	1952
Nectacrest	(Garden State × (N. J. 7432))	"	1947

see above **Cavalier**—is a large attractive, yellow-fleshed nectarine ripening nearly two weeks before Elberta. The flesh is juicy, tender and fine grained. The flavor is sweet and slightly astringent and is rated fair quality. This variety was introduced because of its outstanding ability to escape infection by brown rot. The tree is vigorous and productive.

see above **Nectacrest**—is a large, white-fleshed, freestone nectarine. The flesh is fairly firm and it has a fine nectarine flavor. This variety ripens about a week and a half before Elberta. The tree is vigorous and hardy.

see above **Nectarose**—is a white-fleshed, freestone nectarine of good quality. It is large and nearly covered with a dark red blush. It ripens about with Sunhigh. The tree is vigorous and productive.

p. 2 **New York 884**—(Big Boy × Schumaker) selfed—is our earliest nectarine and ripens with Mikado. Its fruit is medium, white-fleshed and a clingstone. It is recommended for trial due to its high quality, and hardness.

see above **Rivers Orange**—is a yellow-fleshed nectarine which ripens in early mid-season. The fruit is a freestone nearly covered with a dark red blush. No nectarine has a richer, sweeter flavor. This is one of the choicely good European sorts.

p. 2 **New York 1017**—(Livingston × Greensboro) selfed—is a large, white-fleshed, freestone ripening about four weeks before Elberta. The flesh is firm, slightly coarse and juicy and the flavor is good. The tree is productive, hardy and upright in habit of growth. Care in pruning is necessary to avoid weak crotches.

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PEACHES

New peach varieties are being introduced so rapidly that it is confusing to the grower to know just what kinds to plant. He must first know his market or outlet. If he is interested in a succession thruout the season, varieties are now available for such a purpose. The Association is propagating some of the more promising new kinds and these will be released from time to time. If possible a grower should have a small test orchard to determine the kinds best suited to his conditions.

VERY EARLY	Parentage	Where Orig.	Year Introd.
✓ Erlyvee	Golden Jubilee (open pollinated)	Canada	1924
✓ Sunhaven	Redhaven × S. H. 50 (J. H. Hale × Halehaven)	Mich. Sta.	1955
✓ Prairie Dawn	Valiant × Halehaven	Ill. Sta.	1946
EARLY			
✓ Oriole	Slappee × Dewey	N. J. Sta.	1925
✓ Raritan Rose	J. H. Hale × Cumberland	"	1936
✓ Jerseyland	104325 [J. H. Hale × (Slappee × Dewey)] (ocp.)	"	1946
✓ Redhaven	Halehaven × Kalhaven	Mich. Sta.	1940
MID-SEASON			
✓ Triagem	J. H. Hale × Marigold	N. J. Sta.	1938
✓ Fairhaven	J. H. Hale × South Haven	Mich. Sta.	1946
✓ Sunhigh	J. H. Hale × (Carman × Slappee)	N. J. Sta.	1938
✓ Summerrose	J. H. Hale × Delicious	"	1947
✓ Redrose	J. H. Hale × Delicious	"	1940
✓ Richhaven	Redhaven × S. H. 50 (J. H. Hale × Halehaven)	Mich. Sta.	1955
✓ Veteran	Vaughan × Stark Early Elberta	Canada	1928
✓ Kalhaven	J. H. Hale × Kalamazoo	Mich. State	1936
LATE			
✓ Afterglow	J. H. Hale × 27116 (Slappee × Dewey)	N. J. Sta.	1938

see above **Afterglow**—is a large yellow-fleshed freestone which ripens a few days later than Elberta. It is a high quality peach which looks promising to extend the peach season.

see above **Erlyvee**—is a very early yellow-fleshed peach. It ripens about a week earlier than Mikado and is a freestone when dead ripe. The size is small unless well thinned. The quality is good for such an early peach. Its main fault is that its skin is very tender and requires careful handling. It is hardy and productive.

see above **Fairhaven**—is in season about with Sunhigh or two and one-half weeks before Elberta. This yellow-fleshed freestone has very fine quality and is very attractive. The trees are vigorous and tend to over bear if not well thinned.

see above **Jerseyland**—ripens about one week ahead of Golden Jubilee. The fruit is very dark red, yellow-fleshed and firm for an early peach. Reported as a freestone

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in New Jersey but clings at Geneva unless dead ripe. As hardy in bud as Redhaven and about the same season.

P12 **Kalhaven**—is an attractive medium sized, yellow-fleshed, freestone ripening about four days before Elberta. The quality is good and the flesh is firm enough to stand handling well. The variety sets fruit heavily and must be carefully thinned.

P13 **Oriole**—is in season about four weeks before Elberta. The tree is vigorous and productive. The fruit is medium to large in size, roundish, yellow, very good in quality, and a freestone. Its flesh has a greenish tinge that impairs its appearance. Oriole is notable for its hardiness.

P12 **Prairie Dawn**—is an early, yellow-fleshed clingstone, ripening about ten days before Redhaven. The quality is fair since the flesh is rather coarse and not very firm. It is, however, one of the hardiest yellow-fleshed peaches and is vigorous and productive.

P13 **Raritan Rose**—is a white-fleshed freestone peach. The fruit is large and round-oval in shape. It is well washed with red color and attractive. The flesh is of good quality and considerably firmer than that of Cumberland which it is designed to replace. It ripens a few days before Golden Jubilee. The tree is productive and hardy.

P12 **Redhaven**—is a highly colored, yellow-fleshed, freestone peach ripening a few days before Golden Jubilee or about with Oriole. It has good fruit quality and its flesh is very firm for an early peach. The trees set heavy crops and require early and thorough thinning or undersized fruit may result. The tree is vigorous and hardy. Redhaven is very slow to oxidize and excellent for freezing.

P13 **Redrose**—is another white-fleshed peach. The fruit, which ripens about ten days after Raritan Rose or just before Halehaven, is of good size, highly colored and of firm texture. Its quality is far superior to other white-fleshed peaches ripening in its season or earlier. This is a very productive variety.

P13 **Richhaven**—has not fruited at Geneva but is described by its originator Stanley Johnston as resembling Halehaven. It is larger, has a brighter more attractive color and firmer flesh. It ripens with Halehaven. It is freestone even when firm ripe. The tree is large and productive.

P13 **Sunhaven**—is another of Stanley Johnston's originations, described as resembling Redhaven and ripening ten days earlier. It is medium to large in size, bright red in color and nearly free of pubescence. It is a partial clingstone until fully ripe. The tree is productive and vigorous.

P12 **Summerrose**—is a large, attractive, white-fleshed freestone of high quality. It is in season about with Halehaven. The tree is vigorous and productive.

P12 **Sunhigh**—is a large, highly-colored, bright, firm, smooth peach which ripens a few days before Halehaven. It is a freestone with attractive yellow flesh and its quality ranks among the best of the new peaches recommended for trial in New York. It is as hardy as Elberta.

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p13 **Triogem**—is a yellow freestone peach, oval in shape and ripens about two days after Golden Jubilee or three weeks before Elberta. The fruit is highly colored, has short pubescence and is very attractive. The flesh is firm and the variety stands handling much better than Golden Jubilee in addition to having much better quality. The trees are productive and require thorough thinning. Triogem is very good for freezing.

p13 **Veteran**—is large, round, yellow fleshed, usually a freestone and far superior to Elberta in quality. The fruit freezes well. Since it ripens a few days later than Valiant, it makes a desirable sort to follow that variety. It is a productive variety and hardy in bud.

APRICOTS

It is recommended that at least two varieties be planted closely in order to induce better fruitfulness.

	Parentage	Where Orig.	Year Introd.
7 Doty	Unknown	N. Y.	1944
<i>p2</i> New York 345	(Doty × Geneva) open pollinated	N. Y. Sta.	—
<i>p2</i> New York 346	(Doty × Geneva) " "	"	—
7 Henderson	Unknown	"	1935
7 Geneva	"	"	1934

see **Doty**—is named for Mr. Doty, formerly of Oaks Corners, N. Y. as the original tree grew on his place. Tree is very large, vigorous, hardy and productive. Fruit is medium in size, attractive, light golden yellow with few reddish markings, juicy, sweet, nearly free from fiber and very good in quality. Excellent for home and local markets.

see **Geneva**—was grown from seed collected near Frascati, Italy. Sent out by U.S.D.A. as No. 34265. Fruit large, roundish, compressed, slightly pointed, yellow with a blush and dots; flesh yellow, fine-grained, firm, sweet. very good and free from the stone. The trees tend to have weak crotches and require special care in training and pruning.

see about **Henderson**—has large, roundish, yellow and blushed fruit. The flesh is yellow, slightly fibrous, sweet and good in quality, and free from the stone. The tree is strong, vigorous and productive. This variety originated with the late George W. Henderson of Geneva, N. Y.

p2 **New York 345 and New York 346**—(Doty × Geneva) open pollinated—these are sister seedlings very similar in all respects. Both are being offered in order to determine which is better when grown under varied conditions. They bear heavy crops as regularly as any variety tested. The fruit is medium to large in size and attractive. Both are freestone and of very good quality. New York 346 is larger in size and appears to be slightly more hardy in bud. It ripens a day or two later than New York 345. Slight cracking of the fruit of 346 occurred one year but it was less severe than with the variety Superb.

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PEARS

To insure a full crop of pears, two or more varieties should be placed close together. Furthermore there are a few varieties which do not produce good pollen. Alexander Lucas is the only pear of this type in the following list.

The Association is listing the following varieties in order of ripening season from early to late.

		Where Orig.	Year Introd.
EARLY PEARS			
✓ Chapin	Seckel (open pollinated)	N. Y. Sta.	1946
✓ Early Seckel	"	"	1935
p ² New York 7620	Bartlett × Marguerite Marillat	"	—
MID-SEASON			
p ² New York 4885	Bartlett × Ewart	N. Y. Sta.	—
✓ Gorham	Bartlett × Josephine deMalines	"	1923
✓ Maxine	Unknown	Ohio	1870
✓ Ewart	Unknown	"	1917
LATE			
✓ Beurre Dumont	Unknown	European	—
✓ Alexander Lucas	"	France	—

Good alone
Alexander Lucas—an attractive French winter pear of good quality that has never been widely disseminated. Fruit large, round-conic, yellow with a blush; flesh yellowish-white, fine, melting, juicy and aromatic. Desirable for dessert and culinary uses. Season November to January. This variety does not produce good pollen.

Good alone
Beurré Dumont—known for more than a century in Europe and England but like some other choicely good European fruits it seems never to have been disseminated in America. The fruit is medium in size, altho often as large as Bartlett, round-conic, tapering to a short neck. It is greenish yellow to yellow partly russeted and occasionally with bright red blush. The tree is moderate in growth and vigor and is productive. For a dessert pear in early winter this variety has few equals. The flavor is delectably sweet with a most delicious perfume—one of the best in quality.

Good alone
Chapin—resembles its parent Seckel somewhat and ripens six weeks earlier. The fruit is small to medium in size and pyriform in shape. It has an attractive red blush. The flesh is juicy, melting and smooth and the flavor is sweet and aromatic, quality is excellent. It can be picked over a two week period in early August at Geneva. The tree is vigorous and productive but slow in coming into bearing. It has promise as a home garden or roadside stand variety.

Good alone
Early Seckel—is exactly what its name implies—an early-ripening Seckel. The season is from 2 to 3 weeks ahead of Seckel but in cold storage the fruit can be kept longer than Seckel. The variety closely resembles Seckel in appearance and flavor, having the same delectable taste. It is unsurpassed for local and roadside markets.

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Ewart—comes from Mortimer Ewart, East Akron, Ohio. The fruit is remarkable for its large size and good quality. It is greenish yellow, netted with russet, and has a fine, melting, tender, juicy flesh. The season is a month later than Bartlett.

Gorham—ripens its fruit 2 weeks later than Bartlett and keeps a month longer. The fruits resemble those of Bartlett in size, color, and shape. The flavor is sweet and vinous with a very marked and pleasing aroma. The flesh is white, tender, buttery, and juicy—a combination which, with the rich flavor and spicy aroma, makes this one of the very best-flavored pears of its season. Recommended for dessert and canning. Requires heavier feeding than Bartlett for best production.

Maxine—has the best quality of the fire blight resistant varieties. It is productive and ripens from late September through October. The fruit is large, attractive yellow with a flesh which is slightly coarse, juicy, sweet mild flavor and of fair quality.

New York 4885—(Bartlett × Ewart)—A large productive pear of the Bartlett type that ripens a little later. The flesh is white, fine grained, tender and juicy. The flavor resembles Bartlett but is not quite as good.

New York 7620—(Bartlett × Mauguerite Marillat)—A high quality summer pear. It is productive and the fruit is of good size. It is an attractive yellow in color overlaid with some light russet. The flesh is fine, melting and juicy with a sweet and aromatic flavor.

DWARF PEARS

Pear trees are dwarfed when grown on a quince root system. However, certain varieties are not compatible to these stocks. To overcome this, the Association is using a compatible interstem thereby making it possible to produce a strong dwarf pear tree.

JAPANESE PLUMS

The Japanese varieties are mostly early, soft and juicy.

Nearly all Japanese varieties require cross-pollination. At least two different ones should be planted to insure a crop. Formosa has been reported to have pollen of low germinability and should not be selected as a pollinizer.

		<i>Parentage</i>	<i>Where Orig.</i>	<i>Year Introd.</i>
➤ Shiro	Unknown		Burbank	—
➤ Formosa	Japanese		"	1907
➤ Santa Rosa	"		"	1906

Formosa—is a Japanese plum recommended for its large attractive fruits. The plums are oval to slightly cordate, greenish yellow nearly overlaid with red; flesh firm, juicy, melting, pale yellow, sweet and good; stone slightly clinging; ripens in midseason. Tree is a biennial bearer.

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Santa Rosa—is one of Burbank's noteworthy Japanese plums which in nearly all characters of tree and fruit surpasses Abundance and Burbank. The tree is a prolific bearer, and the large attractive fruits keep and ship well. Santa Rosa is one the best Japanese plums on the grounds of the Experiment Station at Geneva.

Shiro—is an attractive, yellow fruited plum of medium size. It ripens early and if allowed to properly mature is of good quality. Thinning may be necessary to attain good size.

EUROPEAN PLUMS

The European plums make up the most important group and include the greatest variety of types and the highest quality sorts that we have.

Many European plums require cross-pollination. Even the varieties that are classed as self-fruitful may produce better crops when cross pollination is provided.

		<i>Parentage</i>	<i>Where Orig.</i>	<i>Year Introd.</i>
EARLY				
✓	California Blue	Peach (open pollinated)	Calif.	1909
✓	DeMontfort	Unknown	European	—
MID-SEASON				
✓	New York 930	Tragedy × Early Laxton	N. Y. Sta.	—
✓	Utility	Jefferson × Peach	Eng. about	1915
✓	Early Transparent	Transparent Gage Seedling	"	1866
	Gage			
✓	American Mira- belle	Imperial Epineuse × Mirabelle	N. Y. Sta.	1925
✓	Pearl	Prune d'Agen seedling	Burbank	1898
✓	New York 981	Italian Prune × Prinlew	N. Y. Sta.	—
✓	Yakima	Unknown	Wash.	1922
✓	Green Gage	"	France?	—
✓	Pacific	"	—	—
✓	Hall	Golden Drop × Grand Duke	N. Y. Sta.	1923
✓	Imperial Epineuse	Unknown	European	—
✓	Stanley	Agen × Grand Duke	N. Y. Sta.	1926
LATE				
✓	New York 826	Albion × Italian Prune	N. Y. Sta.	—
✓	Sannois	European	European	—
✓	Golden Trans. Gage	Transparent Gage seedling	England	1894

American Mirabelle—is a small, yellow sweet Damson. The fruits resemble those of the European Mirabelle in color, but are larger. The flavor is delightfully good. This variety will be appreciated by all lovers of choicely good fruits to eat out of hand or for jams and preserves.

California Blue—An early-ripening, large, roundish, attractive purple free-stone plum. Good in quality. Worthy of trial for home and early markets.

De Montfort—An old French, blue plum highly regarded by lovers of high-quality fruit. Fruit medium in size, roundish oval, and dark purple; flesh juicy, sweet, rich; freestone. Season late August.

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- Early Transparent Gage**—A dwarfish, compact and productive tree. Fruit medium size, yellow-green with red dots and a light bloom. An attractive freestone, juicy, very sweet plum with the highest flavor. It is early and ripens over a long period making it particularly desirable for home gardens.
- Golden Transparent Gage**—A choice, late dessert plum. Fruit is clear golden-yellow with a number of small red dots. Flesh firm, very sweet with rich Gage flavor. The tree is dwarfish in habit.
- Green Gage**—has been cultivated in France for many hundred years. Fruit is medium small, yellowish-green, mottled with red. It is considered in Europe to be the ideal dessert plum, rich in flavor with tender, juicy and melting flesh. A delight to eat, it is unsurpassed for dessert and other uses.
- Hall**—is a large, blue plum. The fruits are attractive and well flavored. Tree is productive and dwarfish in size. Requires pollinator.
- Imperial Epineuse**—is an old French prune. Fruit is reddish purple, tender, sweet, juicy, and highly flavored. Requires cross-pollination.
- New York 826**—(Albion × Italian Prune)—A late reddish black prune-type plum to follow Stanley that appears to be an improvement over Albion.
- New York 930**—(Tragedy × Early Laxton)—A very early, black, prune-type plum of good quality. It ripens in mid August.
- New York 981**—(Italian Prune × Prinlew)—A large, attractive, reddish blue dessert type plum ripening in midseason that may have value as fresh fruit.
- Pacific**—is a handsome, large, bluish, freestone prune-type plum of excellent quality. It is somewhat unreliable in cropping but outstanding in appearance and quality.
- Sannois**—is a late reddish purple French plum of medium size. It is one of the sweetest and most delectable varieties of all the plum family. Recommended for the home garden.
- Stanley**—The fruit is of the prune type, excellent for cooking or eating out of hand. The tree is hardy, healthy, vigorous, and produces full crops annually. The fruit is large in size, dark blue with thick bloom; flesh greenish yellow, juicy, fine-grained, tender, firm, sweet, pleasant; quality good; stone free; midseason. This variety is replacing the Italian Prune in the Northeast.
- Utility**—is a handsome large plum, reddish purple in color with a lighter red bloom. It appears to be worthy of trial for fresh fruit sales in mid August.
- Yakima**—a very large, prune-shaped, purplish red, freestone, good quality plum. Tree is vigorous and upright.

AMERICAN-JAPANESE HYBRIDS

Native or American types are hardy but cannot compare in quality with other types. Hybrids between Japanese and American plums are superior to our native sorts and are hardy in cold regions. They can be grown where the more tender sorts are winter killed.

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	<i>Parentage</i>	<i>Where Orig.</i>	<i>Year Introd.</i>
➤ Kahinta	Apple × Terry	So. Dakota	
➤ Superior	Burbank × Kaga	Sta.	1912
➤ South Dakota	Unknown	"	1933?

See above **Kahinta**—a very hardy productive plum of good quality and medium to large size. Red skin, yellow firm flesh, juicy clingstone that hangs well on tree. The season is early. Requires thinning. Of value in areas where extreme hardness is necessary.

See above **South Dakota**—has proven to be an excellent pollener for the American-Japanese hybrids. The fruits are small to medium size, attractive red over yellow ground. Flesh is yellow and juicy. Season is late mid-season.

See above **Superior**—Fruit is large conic, dark red with russet dots and with a heavy and rather attractive bloom. The flesh is yellow, juicy with sprightly flavor and slightly acid toward skin. It clings to the pit. The season is late mid-season.

GRAPES

The Geneva Experiment Station has introduced over 25 varieties of grapes. Many of them have proved of merit in New York State and in other grape-growing areas throughout the United States. Some of the most promising seedlings have been found too tender to withstand test winters that occasionally occur, or too susceptible to certain diseases as the mildews and black rot. Reports on the performance of any of the introductions is solicited for it forms the basis of our recommendations.

GRAFTED GRAPES

We are becoming increasingly aware of the probable destructive action of certain soil inhabiting organisms on the roots of many of our grape varieties. For this reason the Association has undertaken to propagate and distribute the more susceptible varieties on phylloxera resistant rootstocks. These grafted grapes will usually give more vigorous vines and hence be more productive than self rooted vines. This is especially true if planted on old vineyard sites or near established grapes.

All grafted vines are not equally adapted to all soils. We suggest stock 3306 for heavy textured soils and 3309 for sandy and gravelly soils. The varieties available on these stocks are listed in our price list.

	<i>Parentage</i>	<i>Where Orig.</i>	<i>Year Introd.</i>
VERY EARLY			
➤ Schuyler	Ontario × Zinfandel	N. Y. Sta.	1947
➤ Interlaken Seedless	Ontario × Thompson Seedless	"	1947
➤ Himrod Seedless	" " "	"	1952
➤ Van Buren	Fredonia × Worden	"	1935
➤ Portland	Champion × Lutie	"	1914
➤ Ontario	Winchell × Diamond	"	1908
➤ New York 15305	Ontario × Thompson Seedless	"	
➤ Seneca	Lignan Blanc × Ontario	"	1930

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➤ Seibel 5279	French Hybrid	France	—
➤ Seibel 13047	" "	"	—
➤ Seibel 13053	" "	"	—

EARLY

➤ Athens	Hubbard × Portland	N. Y. Sta.	1938
➤ New York 18080	N. Y. 10842 × Sultana	"	—
➤ Buffalo	Herbert × Watkins	"	1938
➤ Kendaia	Portland × Hubbard	"	1939
➤ Fredonia	Champion × Lucille	"	1927

MID-SEASON

➤ Romulus Seedless	Ontario × Thompson Seedless	N. Y. Sta.	1952
➤ New York 12997	Muscat Hamburg × Ontario	"	—
➤ Concord Seedless	Concord sport ?	"	—
➤ Bath	Fredonia × Sta. 10805 (Chasselas Rose Violet × Mills)	"	1952
➤ Seibel 9110	French Hybrid	France	—
➤ Baco No. 1	" "	"	—
➤ Seyve Villard 5-276	" "	"	—
➤ New York 17806	Muscat Hamburg × Hubbard	N. Y. Sta.	—
➤ Seibel 10878	" "	"	—
➤ Seibel 10868	" "	"	—
➤ Alden	Ontario × Grosse Guillaume	N. Y. Sta.	1952
➤ New York 14528	Muscat Hamburg × Hubbard	"	—
➤ Steuben	Wayne × Sheridan	"	1947
➤ Naples	Delaware × (Mills × Iona)	"	1952

LATE

➤ Sheridan	Herbert × Worden	N. Y. Sta.	1921
➤ Ruby	Keuka × Ontario	"	1938
➤ New York 15302	Ontario × Thompson Seedless	"	—
➤ Yates	Mills × Ontario	"	1937
➤ Golden Muscat	Muscat Hamburg × Diamond	"	1927

See above **Alden**—resembles its European parent in the fruit. It has large meaty berries with the non-slip-skin character of European grapes. Vine vigorous; clusters large, loose; berries oval, reddish black; quality good. Crop must be controlled by short pruning or cluster thinning.

See above **Athens**—is a hardy, vigorous and productive Concord-type grape that ripens two or more weeks before Concord. Bunches are large and loose; berries larger than Concord, black with a heavy bloom; skin tender, flesh sweet and of good quality.

See above **Bath**—is an attractive black, very productive introduction worthy of trial for fresh fruit and processing. The vine appears to be as hardy as Concord. The berries are juicy, sweet and of pure flavor. Severe pruning or cluster thinning is necessary to prevent overbearing.

See above **Buffalo**—is considered by most to have the highest dessert quality of the early black grapes. The vine is very vigorous and productive. The berries are slip-skin, juicy, very sweet, spicy-tart, and vinous.

See above **Fredonia**—is a good quality black grape that ripens two weeks before Concord. More vigorous and more productive than Concord under most conditions.

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Too severe pruning may result in poor berry set. It is our leading early black grape.

Golden Muscat—A beautiful golden yellow grape that ripens with Catawba. The clusters are large and compact, berries large, juicy and of excellent quality when well ripened.

Kendaia—is another early black Concord-type grape that ripens with Athens. It is very vigorous and productive. This grape is well suited to a local early basket trade.

Naples—is a beautiful red grape that resembles its parent, the Delaware, in fruit quality but ripens two weeks later. The clusters are larger and less compact, the berries are larger and have a tougher skin.

New York 12997—(Muscat Hamburg × Ontario)—is a reddish black grape ripening in Delaware season. It has a true muscat flavor and excellent dessert quality.

New York 14528 (Muscat Hamburg × Hubbard)—late black muscat of high quality.

New York 17806 (Muscat Hamburg × Hubbard)—a late white muscat.

New York 18080 (N. Y. 10842 × Sultana)—a handsome black midseason dessert variety. Should be tried for roadside market.

Ontario—is the best early American-type white grape. It ripens two to three weeks before Niagara. The vines are vigorous and productive.

Portland—is another good, early white of Ontario season. It is inherently highly productive but may decline in vigor and production if allowed to overbear. This variety may do best when grafted.

Ruby—when grown under the best conditions is a beautiful red grape of excellent quality. It ripens in Concord season. The crop must be limited by severe pruning and cluster thinning. Ruby will keep well in ordinary or cold storage.

Schuyler—is a very early black, high quality, very sweet grape, with a vinous tang. The berries are more the European type and do not have the slipskin character. Schuyler is medium hardy, productive and vigorous. It must be pruned very severely to avoid overbearing.

Seneca—is an early white grape predominantly European in fruit characters. It is our outstanding white dessert grape. The berry texture is firm, the skin may be eaten with the berry. The flavor is sweet, vinous and aromatic. The vine is vigorous, productive and medium winter hardy. Good maturity of canes through proper mildew control is necessary to ensure maximum hardness of wood.

Sheridan—is a good late-keeping black grape to extend the season of Concord. The vine is vigorous, healthy, hardy and productive; the clusters large and compact. Sheridan is an excellent variety in locations where it ripens properly.

Steuben—is the most promising of the recent introductions and has commer-

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cial possibilities for Eastern growers. The bluish-black fruit ripens shortly after Concord. Clusters are long, tapering and compact. Flavor is sweet with a distinctive spicy tang. The vines are vigorous, hardy and productive.

p2 **Van Buren**—The best very early Concord-type black grape. It is outstanding for its vigor, productiveness and good eating quality.

p21 **Yates**—is a good late red grape that stores very well. Vine is vigorous, productive; clusters large, conical, medium compact; berries large, attractive, medium red; flesh juicy, nearly melting, sweet, vinous, pleasing, good.

SEEDLESS GRAPES

Dr. A. B. Stout, of The New York Botanical Garden, has cooperated with The New York State Agricultural Experiment Station for over 30 years in the breeding of seedless grapes. One of the best parental types for giving seedlessness, as well as good quality, is the Sultanina (Thompson Seedless of California). Stout Seedless, the first to be introduced, has been discontinued as it was frequently winter injured. Sultanina crossed with Ontario gave the Interlaken Seedless, Himrod and Romulus.

p21 **Concord Seedless**—probably a sport of the Concord. Fruit resembles Concord in color and flavor but the clusters and berries are small. Occasionally seed is present but usually berries are seedless. Highly regarded by many as a pie grape.

p21 **Himrod Seedless**—a sister seedling of Interlaken Seedless, ripening slightly later. Its clusters are large and rather loose; berries medium, oval, sweet, yellow, vinous and good. Variety being sent out for trial as its vine has been harder than Interlaken Seedless and its clusters larger.

p21 **Interlaken Seedless**—is a promising seedless grape for the eastern United States. Its medium sized clusters are well filled with berries about the size of Delaware. The fruit ripens to a rich golden yellow color. At Geneva it ripens about September 1 or a full month before Concord. The fruit is very sweet and the flavor blends that of Ontario and Thompson Seedless. The flesh is meaty and crisp and adheres to the skin. The vine compares favorably with that of Golden Muscat, Seneca, and Delaware in hardiness. Temperatures of -20°F may be expected to injure the wood of Interlaken Seedless.

p2 **New York 15302**—is another white "seedless" sister of Interlaken, Himrod and Romulus. It has large, well filled clusters; berries are medium and above in size; the quality is good; seeds are somewhat noticeable.

p2 **New York 15305** (Ontario \times Thompson Seedless)—another early white seedless of excellent quality. Has lacked vigor under some conditions.

p21 **Romulus Seedless**—another sister ripening about two to three weeks later than Interlaken Seedless. Vine productive; clusters large, compact; berries small, yellow, sweet vinous non-foxy flavored, quality good.

FRENCH HYBRID GRAPES

These grape varieties have received increasing attention in recent years. A great many different numbers are now available from certain nurseries

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that specialize in them. They are productions of such famous French hybridizers as Seibel, Seyve-Villard, Ravat, and Baco. Many of these grapes are wine types and not suited for dessert use; some of them have good table quality. The Association is offering a few early-maturing sorts that have shown promise in tests in New York State.

- p²¹ **Baco No. 1**—very vigorous and disease resistant. Good for red wine, juice or jelly. Excellent for arbor. Long pruning.
- p²¹ **Seibel 5279**—is a very early, white-pinkish wine grape. It is vigorous, hardy, and productive. Requires long pruning. The pulp is soft and of pleasant flavor.
- p²¹ **Seibel 9110**—is a beautiful yellow gold, dessert type grape. It has a crisp texture and good eating quality. Ripens in midseason, has medium vigor. Half-long pruning is recommended.
- p²¹ **Seibel 10868**—vine of medium vigor, white grape. Clusters medium to large, berries medium. Promising for wine. Concord season.
- p²¹ **Seibel 10878**—vigorous, productive, black grape. Good red wine. Ripens week before Concord.
- p²¹ **Seibel 13047**—early and productive. White wine of good quality. Also has table grape quality.
- p²¹ **Seibel 13053**—very early blue, vigorous, hardy and resistant.
- p²¹ **Seyve-Villard 5-276**—is a mid season, white variety of medium vigor and good disease resistance. It makes a good white wine. Requires short pruning.

BLUEBERRIES

The following varieties are recent U.S.D.A. introductions. They have been selected for large size of berry, better quality and higher yield. More extensive trials are needed under varied conditions for their complete evaluation, but they appear to be superior to the older varieties.

		<i>Where Orig.</i>	<i>Year Introd.</i>
EARLY			
7	Earliblue	Stanley × Weymouth	U.S.D.A. 1952
MID-SEASON			
7	Blueray	G.M. 37 (Jersey × Pioneer) × C.U.-5 (Stanley × June)	" 1955
✓	Bluecrop	G.M. 37 (Jersey × Pioneer) × C.U.-5 (Stanley × June)	" 1952
✓	Berkeley	Stanley × G.S.-149 (Jersey × Pioneer)	" 1949
LATE			
7	Herbert	Stanley × G.S. 149 (Jersey × Pioneer)	" 1952
VERY LATE			
✓	Coville	G.M. 37 (Jersey × Pioneer) × Stanley	" 1949

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p21 **Berkeley**—has the largest berry of all and is good in quality. It ripens 15 days after Earliblue. The bush is very vigorous, spreading and productive.

p-21 **Bluecrop**—ripens 13 days after Earliblue. It should be tried because of its unusual productiveness, its attractive color, firmness and high quality. It may overbear unless properly pruned.

p24 **Blueray**—is a productive second-early, ripening about one week after Earliblue. The plants are exceptionally vigorous and the berries are very large, firm, light blue and highly flavored. Recommended for trial for northeastern states.

p24 **Coville**—is the latest of all to ripen, coming 30 days after Earliblue. The bush is very vigorous, producing heavy crops of large berries. The quality is good when fully ripe.

p21 **Earliblue**—one of the earliest to ripen and superior to Weymouth in vigor, size, color, firmness and quality of fruit. It should be tried by all who want an extra early variety.

p24 **Herbert**—ripens 25 days after Earliblue and just after Jersey. It is promising as one of the best in size, firmness, quality and productiveness for a late variety.

RASPBERRIES

The Station has introduced several new raspberries which in some respects are definitely superior to the standard sorts in the trade. All of the following are offered as well worthy of trial for the purposes indicated.

B—black, P—purple, R—red, Y—yellow

VERY EARLY AND FALL BEARING	Parentage	Where Orig.	Year Introd.
➤ September R	Marcy × Ranere	N. Y. Sta.	1947
MID-SEASON			
➤ Newburgh R	Newman × Herbert	N. Y. Sta.	1929
<i>p2</i> New York 17861 R	Newburgh × Ind. Summer	"	"
➤ Sodus P	Dundee × Newburgh	"	1935
➤ Bristol B	Watson No. 1 × Honeysweet	"	1934
➤ Dundee B	Smith No. 1 × Palmer	"	1927
➤ Taylor R	Newman × Lloyd George	"	1935
LATE			
➤ Marion P	Bristol × (Newman × Herbert)	"	1937
➤ Milton R	Lloyd George × Newburgh	"	1942
➤ Amber Y	Taylor × Cuthbert	"	1950

BLACK RASPBERRIES

See above **Bristol**—has become a leading variety in the Finger Lakes area of New York and is being planted extensively in other sections. The berries are large, firm, glossy, attractive, good in quality, and ripen in midseason. The plants are hardy, vigorous and productive.

See above **Dundee**—has with Bristol also become one of the principal varieties in the

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Finger Lakes area. Dundee is a little later than Bristol, slightly less glossy and somewhat better in quality, being one of the best in this respect. The plants are as vigorous and productive. Dundee is considered to be somewhat more tolerant of imperfect drainage than Bristol, although it should not be planted on poorly drained soils.

- ✓ **New York 30001**—(Bristol × Cumberland)—This was selected from a Station seedling planting by Herbert Allen, Rock Stream, N. Y., by whom it has been tested extensively. It is slightly earlier than Bristol and bears large attractive berries. Mr. Allen states that a high percentage of the crop can be harvested with the first picking, and on his farm he considers it superior to other varieties.

RED RASPBERRIES

P25 **Milton**—is a fine late variety for market and home use. It is one of the best for freezing. The berries are large, long conic, bright medium red, firm, of good quality, ripening two or three days later than Taylor and Latham. Plants are tall, vigorous, productive, hardy and remain free from mosaic.

P25 **Newburgh**—introduced in 1929, soon became a leading market variety by virtue of its large, firm berries and very productive plants which do not become infected with mosaic as rapidly as Latham in central and western New York. Flavor is mild and quality fairly good. Newburgh ripens three or four days before Latham.

P2 **New York 17861**—is the largest red raspberry in the Station plantings. The berries are medium red, firm, with the mild flavor of Newburgh and ripen in midseason. The plants are very productive, and because of the unusually heavy crop may need support. This selection is well worth trying.

P25 **September**—is the finest available autumn fruiting raspberry. The autumn crop starts about September 1, or nearly a month earlier than Indian Summer. September is also an excellent extra early summer fruiting variety, with the first picking usually coming in late June. The berries are medium size in the summer and large in the fall. They are unusually firm, bright red, good quality in the summer and very good in the fall. The crops are satisfactory and the plants escape mosaic. September is well established for home use. It is also suitable for commercial planting for its very early summer crop.

P25 **Taylor**—is an excellent variety for market and the home garden. The plants are tall, vigorous, hardy, and productive. The sturdy canes do not need support. The berries are large, long conic, firm, medium red, attractive, of excellent quality, ripening about with Latham. Taylor is a fine variety.

P25 **Amber**—is the sweetest, best flavored raspberry now available for home use. The berries are large, long conic, moderately firm and are the color of light honey. Amber is the last to ripen, being even later than Milton. The plants are very vigorous, productive and hardy at Geneva.

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PURPLE RASPBERRIES

p 26 **Marion**—introduced in 1937, as a very large, late, purple raspberry to follow Sodus. The berries are very large, holding up well in size through the season, moderately juicy, firm, tart, and good in quality. They tend to cling to the bushes, but not sufficiently to be seriously objectionable. Marion ripens about a week later than Sodus and will serve to prolong the season for berries of that type. The plants are vigorous, bear heavy crops, are hardy and resemble the red raspberry more than the black raspberry in appearance. Propagation is by tip layering although a few suckers are produced.

p 25 **Sodus**—this variety is the most promising new purple raspberry on the Station grounds. It originated from the cross between the Dundee black raspberry and the Newburgh red raspberry. The berries are very large, firm, medium purple in color, sprightly and good in quality. The plants are very vigorous, very productive, and hardy. Sodus is more resistant to drought than Columbian and yields a good crop every year. It ripens shortly after Latham. This variety has replaced the Columbian, our former standard variety.

BLACKBERRIES

Blackberry varieties that are available have been generally unsatisfactory. These three new varieties, as grown at Geneva, appear to have sufficient merit to warrant their introduction for more extensive trial for market and home use.

Variety	Parentage	Where Orig.	Year Introd.
<i>p 2</i> New York 24338-	15826 (Eldorado × Brewer) × Hedrick	N. Y. Sta.	—
✓ Hedrick	Eldorado × Brewer	"	1950
✓ Bailey	Unknown	"	1950

glance **Hedrick**—Plants are vigorous, productive and hardy. Berries large, medium firm with no core; flavor subacid. Season is late July.

see above **Bailey**—Plants are vigorous, productive and hardy. The berries are somewhat larger than Eldorado, moderately firm, without core, subacid and of good quality. The season is early August about one week later than Hedrick. Offers promise as a commercial variety.

p 2 **New York 24338**—is a vigorous productive, mid-season berry that appears superior in most respects to other varieties and selections now being grown at the Station.

STRAWBERRIES

The following new strawberry varieties from the breeding work at Geneva have shown considerable promise at Geneva and elsewhere and are considered worthy of extensive testing for the purposes indicated in the descriptions.

Variety	Parentage	Where Orig.	Year Introd.
<i>p 2</i> New York 418	Midland × Suwanne	N. Y. Sta.	—
✓ Empire	Dresden × Sparkle	"	1951
<i>p 2</i> New York 386	U. S. 2827 (Dorsett × U. S. 367) × self	"	—

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> Erie	Sparkle × Howard	"	1951
> Eden	Dresden × Fairfax	"	1952
p 2 New York 423	(Midland × Swanee)	"	
p 2 New York 96	Erie × Sister Seedling	"	

p 27 **Empire**—Vigorous, productive, producing runners freely, berries large, maintaining size well, conic to wedge conic, light red, very glossy and unusually attractive; skin tougher than Howard (Premier); flesh medium firm, good quality; ripens four to six days later than Howard. Commercial plantings are increasing rapidly and the variety appears to be of unusual promise.

see above **Erie**—Vigorous, very productive, producing runners freely. Berries large, maintaining size well, conic bright medium red; skin medium tough; flesh medium firm; quality equal to Howard (Premier); ripens five to eight days later. One of most productive varieties and worthy of trial as a late market sort.

see above **Eden**—Vigorous, productive, producing runners freely. Flowers are above the foliage and fruit is held off of the ground to some extent. Berries large, maintaining size well; wedge conic, medium to dark red, glossy, attractive; skin tough; flesh firm, deep red, tart; quality fair; ripens with or slightly before Sparkle. One of the best for freezing and suitable for market.

p 2 **New York 96**—(Erie × Sister seedling)—Plants unusually large, very productive, medium red, attractive; skin medium tough, flesh firm, deep red, subacid; quality good; ripens with Sparkle. One of best for freezing. The large plants and relatively few runners make this a good variety for the hill system.

p 2 **New York 386**—(U. S. 2827 (Dorsett × U. S. 367) × Self)—Vigorous, productive, producing runners freely. Berries large, medium red, very attractive, slightly soft; quality very good; ripens midseason or about five days later than Howard. Its fine flavor makes it one of the best for home use.

p 2 **New York 418**—(Midland × Suwanee)—Vigorous, productive, producing runners freely. Berries large, medium to slightly red, glossy, medium tough skin; flesh firm, tart; quality fair to good; ripens from one to two days before Howard. Promising early selection.

p. 2 **New York 423** (Midland × Swanee)—Plants vigorous productive, producing runners freely with flowers apparently somewhat resistant to frost. Berries above medium size, glossy, attractive medium red, medium firm, subacid, good quality, ripens about with Sparkle. One of the best for freezing, being slightly superior to Sparkle and N. Y. 96.

F I L B E R T S

All varieties of filberts are self-unfruitful so ample provision for cross pollination by including two or more varieties in any planting is recommended. At least one of these varieties should have hardy catkins.

> **Cosford**—Nuts are of medium size and are the thinnest shelled of all varieties. The tree is vigorous hardy and productive. Catkins are hardy.

> **Medium Long**—The nuts are slightly larger than those of Cosford and the

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shells are of medium thickness. The tree is vigorous, hardy and productive and the catkins are moderately hardy.

- **Italian Red**—Nut large, pointed, with medium thick shell, good in quality, tree very vigorous and one of the most productive. Catkins are moderately hardy.

C U R R A N T S

- **Stephens #9**—a recent introduction distributed by The Central Experimental Farm, Ottawa. Bushes are vigorous, productive and somewhat spreading, clusters are medium to large and compact. Fruit large and of good quality, less acid than some. Ripens in midseason and has done well at Geneva.
- **White Imperial**—This variety is considerably better than White Grape, the variety usually sold by nurseries.

G O O S E B E R R I E S

Gooseberries are an excellent home garden fruit, being used for jam, jelly, pie, and dessert. Fredonia and Poorman are the best of many varieties tested at the Experiment Station.

		<i>Where Orig.</i>	<i>Year Introd.</i>
EARLY MID-SEASON			
→ Poorman	Unknown	Utah	1896
LATE			
→ Fredonia	Unknown	N. Y. Sta.	1927

see above **Fredonia**—Moderately vigorous, productive. Berries very large, dark red, attractive, good, late. Probably the best English type as well as being one of the largest.

see above **Poorman**—The plants are the most vigorous, healthiest and most reliably productive of any variety grown at Geneva. The berries are the largest of any American type, red, attractive and the best quality. Every home fruit garden should have a few bushes of Poorman.

E L D E R B E R R Y

The elderberry of the fields and fence-rows has always been popular for pies and home-made wine. It grows readily under domestication as a beautiful ornamental and is as easily improved in the breeder's hand as any other native fruit.

Adams—is a selection made by the late William W. Adams, Union Springs, N. Y. In the past a mixture of two clones of Adams has been grown because the original clone was thought to be self-unfruitful. The Association has now separated these clones and will designate them as Adams #1 and Adams #2. Adams #2. Adams has a strong, vigorous and productive plant and the fruit clusters and berries are exceptionally large. The only difference between Adams #1 and Adams #2 is that #2 is more vigorous and the stems tend to be more reddish in color, late in the season.

It is suggested that when ordering, at least one plant of each be ordered to insure proper pollination.

POINTS TO CONSIDER BEFORE PLANTING

SOIL—Most kinds of fruit thrive best on deep, well drained and friable soils.

Pears and plums will grow better on heavy soils, while the peach, cherry and strawberry prefer a lighter soil type.

AGE OF TREES—The youngest plant available will transplant best. One year peaches and sweet cherries are most satisfactory and either one or two year trees of apples, pears and plums may be planted. Older trees do not have any advantage.

TIME TO PLANT—Fall planting is favored for most fruits except in the colder areas. Spring planting is preferred for peaches as they may be winter-injured when planted in the fall.

AIR DRAINAGE—Avoid frost pockets.

HARDINESS—The degree of cold that causes injury depends on variety and maturity of plant. Fruit buds of peach may be winter-injured at -10° to -15°F. , sweet cherries at -20°F. , pears at -25°F. , and grapes at -15° to -25°F.

POLLINATION—It is considered good insurance to have at least two or three compatible varieties in the same planting. This is true of all tree fruits, except the self-fruitful peaches.

SELECTION OF VARIETIES—This depends on the length of season to ripen the fruit, the resistance to cold and the use for which the fruit is desired. Such varieties as Eden strawberry, Milton raspberry and Red-haven peach are excellent varieties for freezing.

LANDSCAPE VALUE—Most fruits can be used in the background as ornamentals and at the same time produce some fruit for home use. Raspberries, blackberries, grapes, elderberries and filberts make excellent hedges. Currants, gooseberries, blueberries and Tomentosa are fine for border plantings. Tree fruits can be planted about the grounds as specimen trees. Ornamental crab apples and dwarf fruits are especially desirable for this purpose.

TIME OF BEARING—Small fruits require two years, grapes and peaches three to four years, plums and cherries five years, apples and pears five to eight years depending upon variety. Apple and pear trees on dwarfing rootstock bear two to three years earlier than when growing on a standard seedling rootstock.

SPACING TO PLANT—

<i>Fruit</i>	<i>Spacing</i>	<i>No. Plants per Acre</i>
Apple—standard.....	35 × 35	35
“ on Malling II.....	20 × 30	72
“ “ “ VII.....	15 × 25	116
“ “ “ IX.....	10 × 20	218
Pear.....	30 × 30	48
“ —dwarf.....	10 × 20	218
Cherries, peaches, apricots, nectarines.....	25 × 25	70
Plums.....	20 × 20	108
Grapes.....	8 × 10	545
Red raspberries and blackberries.....	2 × 8	2716
Black and purple raspberries.....	3 × 8	1814
Currants, gooseberries, elderberries, blueberries.....	5 × 10	871
Filberts.....	15 × 15	198
Strawberries.....	2 × 3½	6225

PLANTING TIPS

CARE ON ARRIVAL—If soil is not ready, heel the plants in moist soil in a shady spot. If roots are too dry, soak overnight in water.

HOW TO PLANT—Dig a hole large enough to allow all roots to be placed in their natural position. Cut back tips of broken roots. Set slightly deeper than they were in nursery. Place top soil around roots and pack firmly. Water will help the plant to start quicker. Set berries the same depth as they grew in the nursery.

PRUNING—It is important to cut back the tops to about one-half their length, leaving two or three well spaced branches and a leader. Care should be taken to make cuts to an outside bud and to avoid narrow crotches. One year old trees may be cut back to a whip at a point where the branches are desired. Prune grapes to two buds.

CULTIVATION—Young trees respond well to cultivation until August when a cover crop should be sown. Heavy mulch of straw, sawdust or grass can also be used.

PROTECTION FROM RODENTS—Protect young trees with $\frac{1}{4}$ " mesh wire guards $1\frac{1}{2}$ ft. high and 6" in diameter. Mounding with sand or cinders may be helpful. Poison bait applied in the fall is recommended.

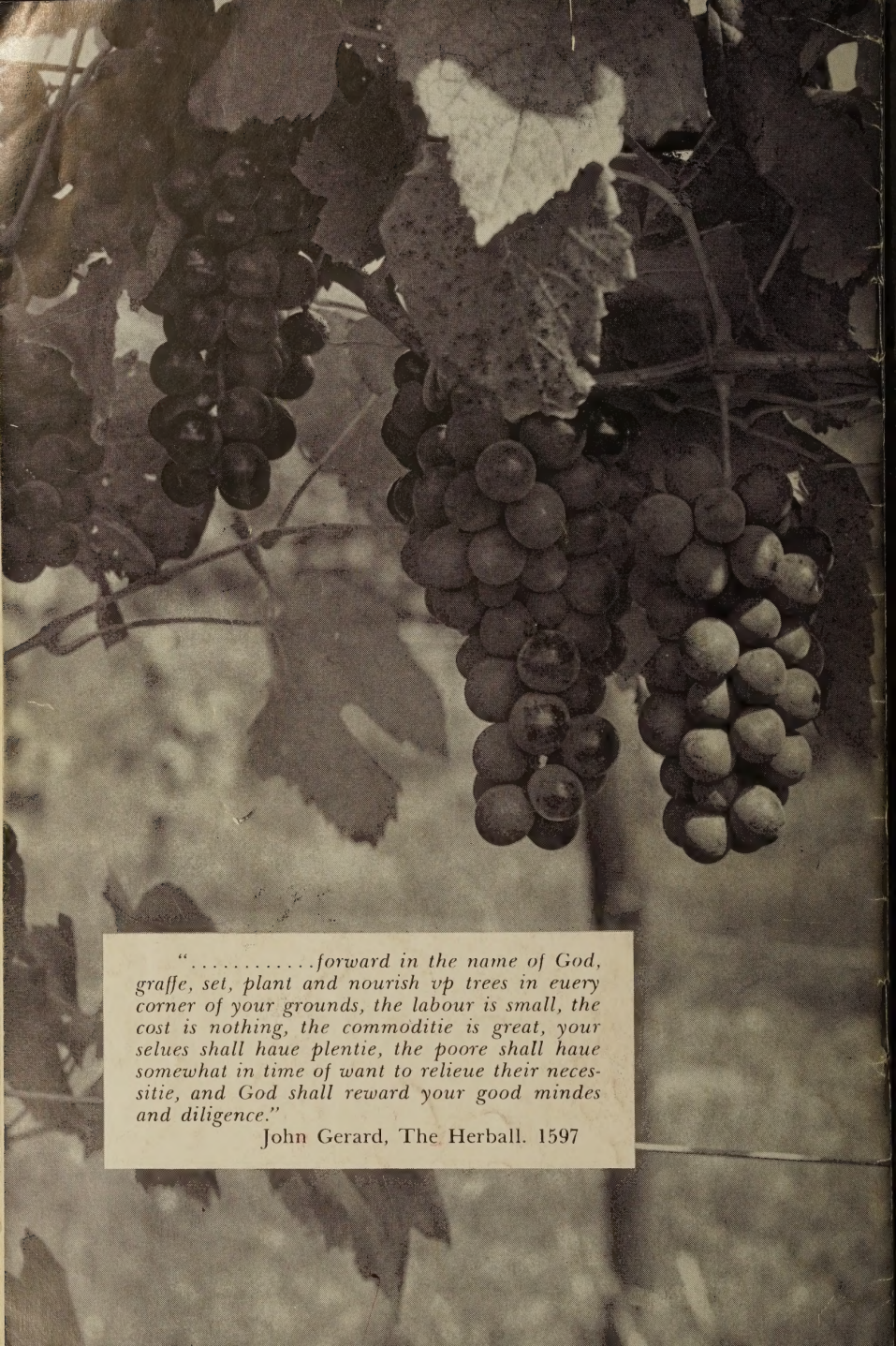
FERTILIZATION—Well prepared and fertile soil will need no fertilizer the first year. Then $\frac{1}{4}$ lb. of nitrate of soda or its equivalent should be applied for each year of its growth, spreading it under the tree but away from the trunk.

SPRAY—Send for bulletin E812 to the address below.

For additional information write The New York State Agricultural Experiment Station, Geneva, N. Y., and ask for their list of publications.

We guarantee our nursery stock to arrive in good condition and to grow if given proper care. We cannot be responsible for losses due to poor growing conditions. Notify us immediately if you are not completely satisfied with your order.

W. F. HUMPHREY PRESS INC., GENEVA, N. Y.



*".....forward in the name of God,
graffe, set, plant and nourish vp trees in eevery
corner of your grounds, the labour is small, the
cost is nothing, the commoditie is great, your
selues shall haue plentie, the poore shall haue
somewhat in time of want to relieue their neces-
sitie, and God shall reward your good mindes
and diligence."*

John Gerard, *The Herball*. 1597